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ABSTRACT

The Biological Sciences Curriculum Study (BSCS) Human Sciences Project developed, produced, and field tested 13 interdisciplinary, non-traditional, non-text science curriculum modules for early adolescents, ages 11 to 14. The Human Sciences Data File- HSPALL (ED 211 383) contains evaluation data from the 1973-1976 field testing of the Human Science Program in seven middle/junior high schools in different parts of the United States. The purpose of this user's guide is to present background information about the data collection process and materials (focusing on the following modules: Survival, Sense...or Nonsense?, Learning, Growing, Rules, Where Do I Fit?, Perception, Reproduction, Change, Feeling Fit, Invention, and Surroundings.) A list of variable names and labels with associated page numbers for the data file is provided. (Author/JN)

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ED216901

Human Sciences Evaluation Data, HSPALL

A file containing 1275 variables for 734 students (cases) who participated in part or all of the field testing of the BSCS Human Sciences Program, 1973 to 1976. This program was a three-year experimental interdisciplinary science curriculum designed for early adolescents, ages 11 to 14.

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User's Guide for the Machine-Readable Data File

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Abstract

The BSCS Human Sciences project developed, produced, and field tested 13 modules of an interdisciplinary three-year science curriculum designed especially for 11 to 14 year olds. Seven school sites were selected for the three-year field test. These sites were in an inner city middle school in Detroit, Michigan; urban middle schools in Portland, Oregon, Columbia, South Carolina, and Baltimore, Maryland; and suburban elementary and junior high schools in Lakewood, Colorado and San Jose, California.

Five modules were tested with sixth graders in 1973-74, four modules with seventh graders in 1974-75, and four modules with eighth graders in 1975-76. A fifth Human Sciences module, KNOWING, tested with eighth graders in 1977, is not included in this data file, but is available as a separate data file with codebook and user's guide.

The data file HSPALL contains 734 cases with 1275 variables, collected over the three-year test period. The file contains 213 cases who were in the test program for the full three years.

The data file contains module-specific data for each of the 13 modules tested. The unique feature of student choice of activities for study makes the file a unique data source for studies of the varied curricula activity studied by each student.

Module-specific data includes activity choice, and for several modules, achievement data, books read, and self-reports of work habits and skills developed.

In addition to module-specific data, an attitude scale and a logic test were administered in May 1974 and in May 1976. These data, plus date of birth, sex, school, and teacher identification, complete the data file.

The data are stored as an SPSS archive file and may be obtained in sections of up to 1,000 variables, with SPSS labels, if desired.

Additional materials regarding the field test of Human Sciences are also available.

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Biodata

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ID	Student Identification Number	6
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TEAC74	Teacher NR in 1974 (1973-74)	11
SNR74	Student NR in 1974 (1973-74)	12
SEX	1 = Male, 2 = Female	12
SCH75	School NR in 1975 (1974-75)	13
TEAC75	Teacher NR in 1975 (1974-75)	13
SNR75	Student NR in 1975 (1974-75)	14
SCH76	School NR in 1976 (1975-76)	15
TEAC76	Teacher NR in 1976 (1975-76)	15
SNR76	Student NR in 1976 (1975-76)	16
BYEAR	Year of Birth	17
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BDAY	Day of Birth	18
AGE	Age in months as of May, 1974	18

*Parentheses include information not printed in codebook label

Variable Name	Variable Label	Page
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History of the Originating Project

The Human Sciences Data File, HSPALL, is a file containing the evaluation data gathered during the years 1973 to 1976, from the field testing of the Human Sciences program in seven schools in different parts of the United States. The purpose of this brief listing is to give enough background about the data gathering processes and materials to enable users to utilize the data for exploratory research as well as research projects of their own design. A complete history of the Human Sciences Project has been prepared by Ross (1981) and a report of the formative evaluation of the Human Sciences Project was developed by Robinson (1981b).

The Human Sciences program was initiated by the Biological Sciences Curriculum Study with support from a grant from the National Science Foundation. The first grant for the project was received in March, 1971. The first pilot curriculum materials were developed in the summer of 1972 and field tested in 1972-73. These pilot modules were tested across grade levels in grades 6, 7, and 8 in order to determine some idea about the grade placement of different scientific activities. The Human Sciences project prepared interdisciplinary, nontraditional, nontext materials for science classrooms for early adolescents, ages 11 to 14.

The initial funding received by the Biological Sciences Curriculum Study was granted to develop a curriculum framework, a theoretical rationale, and pilot materials for classroom testing at the middle school, junior high school level. The program materials that were developed were organized into units called modules. A module was a block of materials organized around a particular theme and designed to be used in classrooms from a period of six to nine weeks. The curriculum materials produced by the Human Sciences project consisted of fourteen modules. Five were developed and tested with 6th grade students in 1973-74. Four were developed and tested with 7th grade students in 1974-75, and four were developed and tested with 8th grade students in 1975-76. Sixth grade modules were designated Level I and were titled BEHAVIOR, SURVIVAL, SENSE...OR NONSENSE?, LEARNING, AND GROWING. Level II modules were titled RULES, WHERE DO I FIT?, PERCEPTION, AND REPRODUCTION. The Level III modules tested were titled CHANGE, FEELING FIT, INVENTION, AND SURROUNDINGS. An additional Level III module was developed and field tested in the spring of 1977. That module was KNOWING.

The materials that students came in most contact with was the activity. Each module was made up of a number, usually 30-40 to as many as 50 activities. A unique feature of Human Sciences was that no activity was required of any or all students. Students were free to choose the activities they were to study and to study as many as they could within the time period alloted for the testing of the module.

The content sources of the materials were both the natural and social sciences, but with emphasis on the natural sciences. Activities were written, insofar as possible, to be interdisciplinary. The primary goal of activities was to interest students in learning.

The data tape HSPALL includes the evaluation data gathered from the fall of 1973 to the end of the academic year 1976, with the same test schools and students.

The KNOWING module was tested with a different group of 8th grade students. Field test data, a user's guide, and two codebooks are available for the KNOWING module.

Test Site Selection

Seven test sites were selected to field test the Human Sciences curriculum materials. Test sites were selected on the basis of geographic distribution, demographic characteristics, organizational type, agreement to permit observers in classes, agreement to permit teachers to miss school days for teacher orientation and briefing sessions during the field test period, commitment to maintain the experimental materials in the school for three years, and commitment to initially set up three classes as test classes for the Human Sciences program with at least two teachers teaching the materials. The agreement with test schools also included permission to allow students to transfer out of experimental classes if parents so desired and to transfer new students into Human Sciences classes in order to maintain necessary pupil/teacher ratios. The seven sites were selected from an initial mailing list of over 300 schools. Two of the sites were elementary schools with grades K-6. One was in suburban Denver, Colorado; the second, in suburban San Jose, California. Five test sites were middle schools that included grades 6, 7, and 8. One site was in Detroit, Michigan, an inner city urban school; a second, in Madison, Wisconsin, a suburban school; a third, in Columbia, South Carolina, an urban school; a fourth, in Portland, Oregon, an urban school, and finally, the fifth was in Baltimore, Maryland, a suburban school. Students from the two elementary schools transferred to junior high schools at the end of field testing Level I.

The limitations of the length of labels for variables and values available in the SPSS systems precluded a verbatum display of the actual question or problem students were asked. Additionally, many instruments utilized line drawings and diagrams, and in a few instances, black and white photographs. Because the value of the data tape would be seriously limited without the actual evaluation materials used, plus materials for students and teachers, a microfiche has been prepared by the ERIC Clearinghouse for Science, Mathematics, and Environmental Education (Robinson, 1981) and can be obtained from them.

To avoid repetition, citations of this reference (see References) will not be made at what would be the appropriate places after the name of each instrument or procedure used in this guide.

Instrumentation

The Data File and Codebook are organized into several sections. These sections are repeated here so that instrumentation can be discussed in parallel with the sections in the Data File and Codebook.

Biodata

The biodata gathered in this project included a serial number for each case; the sex, and age of each student. A school number (SCH74), a teacher number (TEAC74), and a student code number (SNR74) were issued to each student entering the program in 1973-74. In addition, a sex code (SEX) was applied to each case, date of birth (BYEAR, BMONTH, BDAY) and age in months (AGE) as of May 1974 are included in the biodata section. Legal restrictions prohibited gathering ethnic background data.

All students who participated in Human Sciences test classes in the second year, 1974-75, were assigned a school number (SCH75) and a teacher number (TEAC75) for 1975, repeating their original student numbers in SNR75. New students were given a student and teacher number for 1975 and were given that same teacher number and school number as "fill-ins" in the 1973-74 data fields. Similarly, code numbers for school and teacher were assigned to those students who first entered Human Sciences in 1975-76. Students who had been in the program were assigned a school and teacher number for 1976. These variables appear in the biodata file. The 5-digit code consisting of school 74, teacher 74, student number 74, and sex were used as a basic student identification number (ID). This unique number identifies each case in the data file.

The 734 cases in the data file represent most of the students who participated in the field testing of Human Sciences. Student cases were eliminated if they occurred in only one of the test years and had data in the file for two or less modules. This means that students who transferred in and out of a test class within a two to four months period were eliminated from this file. Nine hundred and six student cases were on record from the beginning to the end of the test period. Some of these cases were the result of a duplication of a student code rather than the actual establishment of two student cases. In one case the evaluation received from two students became intermixed as both students had identical names and were in the same school and class. These two cases were both eliminated from the file.

Listing checks were made on every subset of data. Every variable was checked for consistencies in student numbers. Duplications and other anomalies in student code numbers were all traced back to the original evaluation sheets or data sheets from which data cards were made. When positive identification could be made student code numbers were assigned and data were included in the file. When positive identification could not be reliably assigned to a case, data were eliminated. Where student cases (as mentioned before) contained data for less than three modules in any one year and the student was not enrolled in test classes in a second year, that case was dropped from the file. Sex codes and age data were verified through frequencies analysis and through checking class lists. Students were blocked by males and females so that anomalies in coding could be easily observed. When questions developed regarding appropriate coding for a particular student the primary source documents were consulted to establish accurate data. When accurate data were missing, correspondence was made with the test school to secure the appropriate information. Every effort was made to validate that every item of data is filed in the proper student file.

Level I Evaluation Data, 1973-74

Level I data are presented module by module in the order in which they were tested, with the BEHAVIOR module first, followed by SURVIVAL, SENSE...OR NONSENSE?, LEARNING, and GROWING.

To identify a particular teacher's students, both the variables SCH74 and TEAC74 are required. The frequencies for SCH74 give an accurate number of students by school, but the frequencies for the variable TEAC74 group teachers with the same teacher number, but who were in different schools. The data for SCH74, code 8 and 9 show students who were added to the two junior high schools in year 75-76. The 1973-74 field test teachers (SCH74, TEAC74) were given a four-day orientation to the Human Sciences program prior to the beginning of the field test. Biodata appear on pages 1 to 18 in the codebook.

The only module-related data gathered in Level I was whether or not a student self-reported that he or she did or did not do an activity. These data were gathered on individual sheets, titled "Activity Evaluation Form" in BEHAVIOR and SURVIVAL, and "You Are the Judge" in SENSE...OR NONSENSE?, LEARNING, and GROWING. Students marked Likert-type scales on both of these evaluation forms. Additionally, they marked a box at the end of the activity either "yes, I completed the activity," or "no, I did not complete the activity." This self-report system was used for variables BEHØ1 to BEH28, SURØ1 to SUR3Ø, SENØ1 to SEN24, LERØ1 to LER28, GRWØ1 to GRW3Ø. In addition to module activities, in some classes students began to develop their own activities. This occured more toward the end of the

year than at other times, and more in short modules than in longer ones. The frequencies for variables labeled "student developed activities" indicate the number of students who reported that they had either written and completed a self-developed activity or had completed one developed by other members of their class.

End of Year Measurements

At the end of the school year 1973-74 three evaluation instruments were administered to all students in Human Sciences. "What's Happening?" (WHAPØ1 to WHAP38) was a 38-item Likert-type 5-value scale, with values from strongly disagree to strongly agree. Questions or statements had to be paraphrased to meet the restrictions of the SPSS system but full statements of the "What's Happening?" instrument are provided with the measure. Values for the 38 variables from this instrument are on pages 66 to 84 of the codebook.

"How Is Your Logic?" was presented in two forms, Form A (HYLAØ1 to HYLA15) and Form B (HYLBØ1 to HYLB15). Form A was given on one day; Form B was given on a second. Each form consisted of 15 items, including explanations for several items. In order to reduce problems of reading, teachers read each item twice orally. Students could ask questions regarding clarification of the meaning of words to insure that they fully understood the statement or problem. Logic test data are on pages 85 to 100 of the codebook.

Complete directions for administering both the logic test and "What's Happening?" were provided to all teachers. Teachers administered both instruments in their test classes. Logic test protocols for scoring are copyrighted by Dr. William M. Gray, University of Toledo, Toledo, Ohio. The schema for scoring enables one tc code each kind of student response as to the logical operation displayed by the response. Frequencies are, therefore, provided by the logical operation of each student response rather than as a right or wrong response.

An ego development scale (Loevinger, 1966) was also administered at the end of 1973-74. The test was administered to all students, but only a random sample of 10% of the students' papers could be scored. Four cases were eliminated from the sample of 60 in the process of cleaning up the files. Scoring of responses to this instrument was done by Paul Sullivan, Boston University, a former student of Loevinger's. The single score for these cases appears as variable EGODEV, page 100 of the codebook.

Level II Evaluation Data, 1974-75

Four modules were tested during the 1974-75 school year. The student group consisted of Level I, Human Sciences students who wished to continue in the Human Sciences program a second year, and additional students added to classes to make student/teacher ratios consistent with school policies. There were approximately 490 students enrolled in the school year 1974-75 of whom 78 were new to Human Sciences and 412 who were carried over from the previous year. There were thirteen teachers teaching these students, three of whom were experienced Human Sciences teachers and ten of whom had not had previous experience. All teachers were given a 2-1/2 day orientation session to Human Sciences in October 1974 prior to receiving the first module for field test. Three different evaluation models were used during 1974-75. In general, all of these models included instruments to gather information as to the activities students had chosen and the extent to which they had completed those activities, achievement evaluation instruments of one type of another, and particular evaluation activities for RULES and REPRODUCTION. This variation in instruments and procudures requires a discussion of each module separately.

Rules Module

RULES was used in Human Sciences field test classes from the first week in October until roughly the end of January. The time of use varied from class to class with the difference being six weeks.

The RULES module was divided into three problem areas, "Is There A Rule?", "What Should I Do?", and "How Do Rules Change?" An evaluation period was designated to end each of these problem areas. The length of time teachers were to spend on a problem area was to be determined by teacher judgment. The guideline was when students began to indicate they found no activities they wished to choose, the problem area was to be terminated and an evaluation period held. Then, a new problem would open for student choice. Students were to be allowed to continue activities from the previous problem area until they had completed those they had begun.

During the evaluation, data were gathered about activity choice and student achievement. A form titled "My Activity Record" specific to each problem area was given to each student. Students checked one of four columns, "I started and finished," "I started but didn't finish it," "I didn't want to do it," and "I didn't have time to do it." The titles of the activities for each problem area were printed so that checking was all that was needed. Activity record data for RULES are reported as variables RULES Ø1 to RULES45, pages 1Ø1 to 123 of the codebook.

Achievement data were gathered during each evaluation period by essay problems called "Choose Your Problem." Students were to choose one or two problems from a group of from five to 12 essay problems and write their responses on a form printed on NCR paper. Answers to five essay problems were obtained from each student. Carbon copies were sent to the Human Sciences project.

Review teams consisting of three to five students each were to complete forms titled "Review Team Evaluation Sheet," Problems 1 to 5. Review team data were gathered to secure data about group problem solving and to gather additional data about student reactions to the activities in the module. With the exception of the data from "My Activity Record," the evaluation data were hand coded, analyzed, and reported in Robinson (1981b). Therefore, data from "Choose Your Problem" and from review teams are not recorded in the HSPALL data file.

Where Do I Fit? Module

Difficulties with the review team evaluation problems in RULES (see Robinson, 1981b) led to their elimination as an evaluation activity in "Where Do I Fit?" Teachers were asked to hold the first evaluation period at the end of the fourth week of the use of "Where Do I Fit?" and the second evaluation period at the end of the module. The first evaluation period involved students choosing any two of eighteen "Choose Your Problem." Responses to the two "Choose Your Problem" chosen were recorded on worksheet forms that included carbon copies that were forwarded to the Human Sciences project.

The codebook gives briefs of each essay problem and the coding values for each variable for each problem. Coding was done by the project evaluator. Coding was recorded on the student data sheet and secretarial personnel transferred coded scores to optical scan sheets for converting into card format.

Variables WDIFAØ1 to WDIFRØ2 (pages 149 to 166 in the codebook) are the variables coded for each essay problem, problems A to R. Some problems were coded into several parts, others were coded in one part only. At the end of the module (evaluation period 2), two essay problems were to be chosen from the "Choose Your Problem" list. These were to be two different essay problems from those chosen in the previous period. Protocols were developed and used for coding student responses to these essay problems.

Students were given three "My Activity Record" optical scan sheets. Students had recorded the activities they had chosen in a folder provided by the project. The task at the evaluation period was to transfer their activity record information to the optical scan form. Students were to mark each activity with one of five responses as follows:

Mark 1 If you started the activity and finished it.
Mark 2 If you started the activity but didn't finish it.
Mark 3 If you didn't want to do the activity.
Mark 4 If you didn't have time to do the activity.
Mark 5 If you have not looked at the activity.

These data are reported as variables WFACTØ1 to WFACT45, pages 123 to 144 of the codebook.

The name of each activity was printed on the optical scan forms. All coding was done by students. On Form 3, the titles of nine books that were included in the "Where Do I Fit?" library, an integral part of the module, were listed. Students were to code for each book one of five values as follows:

Mark 1 If you started the book and finished it.
Mark 2 If you started the book and didn't finish it.
Mark 3 If you didn't want to read the book.
Mark 4 If you didn't have time to read the book.
Mark 5 If you have not looked at the book.

These data are reported as variables WFLIBØ1 to WFLIBØ9, pages 145 to 149 of the codebook.

Perception Module

The perception module was tested in mid-year, 1974-75 for a period of roughly seven to eight weeks. The data for PERCEPTION were gathered incrementally over that period of time as students completed each part. Students kept records of the activities they chose on a form printed with the title of each activity. There were three evaluation periods in the PERCEPTION module, one at the end of each of the three problem areas. At the completion of the problem area, "Perceiving," students transferred their activity records from the PERCEPTION packet to a "My Activity Record" optical scan sheet, marking each activity with a value of 1 to 5 using the same criteria as were used in the "Where Do I Fit?" module. Activity choice data are reported as variables PRACTØ1 to PRACT47, pages 166 to 189 in the codebook. Achievement evaluation was accomplished through "Choose Your Problem" of which there were four groups. Groups 1, 2, and 3 "Choose Your Problem" were each related to a specific problem area--Perceiving, Using Perceptions, and Exchanging Perceptions. Group 4 "Choose Your Problem" were general problems over the entire module. Two essay problems were requested for the problem area "Perceiving," one for "Using Perceptions," and two for "Exchanging Perceptions," making a total of five essay problems completed by each student for the PERCEPTION module.

Responses to three "Choose Your Problem" were coded and are included in the data for PERCEPTION. Problems A, U, and DD were the

three most chosen essay problems used in the PERCEPTION module. The complete statement of each problem follows:

A. People have blue eyes, brown eyes, grey eyes, or green eyes. Their eyes are different in color. But everybody in the world has black pupils (centers) in their eyes. Why?

U. Get out your RULES record. Look at the answers for your "Choose Your Problem" worksheets. Compare them with your answers to the "Choose Your Problem" you have completed during PERCEPTION. Explain how your answers have improved.

DD. How do you feel about the activities you completed in this problem area? Explain as well as you can why you feel this way.

Coded values of these three variables appear in the codebook as PERCEPØ4 through PERCEP14, pages 19Ø to 193. Coding protocols are briefed in the codebook. Complete protocols for these problems and all protocols used for coding are available in Human Sciences Evaluation Materials (Robinson 1981a).

Reproduction Module

REPRODUCTION was tested in field test classes beginning about the end of the first week in May 1975. Two of the five test schools did not use REPRODUCTION, as one had a teachers' strike of eight weeks and the second had school closing at the end of May. Data from the other schools indicated that REPRODUCTION was used from a minimum of three or four days to a maximum of four weeks. Therefore, data from this module are limited. All evaluation activities for REPRODUCTION were scheduled for the end of the module. The format for "My Activity Record" remained the same as for other Level II modules, with students recording the activities they did in a REPRODUCTION folder and transferring them to optical scan sheets by marking each activity with values 1 to 5.

An entirely new format for achievement evaluation was developed for REPRODUCTION. Three evaluation booklets were produced. Evaluation Booklet 1 contained 38 test questions, a mexture of multiple-choice, essay, completion, and matching. Evaluation Booklet 2 included 37 items mixed in the same way as Booklet 1, making a total of 75 test questions. Students were invited to choose the questions they wished to answer based upon their previous knowledge and/or their completion of activities in REPRODUCTION. They were also asked to rate each item as to importance and to check one of six reasons for their choice.

Values for the variables for activity choice appear in the codebook beginning on page 193 with variable RPACTØ1, the first activity coded, and terminate on page 212 with RPACT39, the last activity in REPRODUCTION, "Debating Issues About Reproduction."

Values for the test item variables from Evaluation Booklet 1 begin on page 213 with variable RPROBØ1 and terminate of page 232 with variable RPROB38. Following these 38 test items are the student ratings of the importance of these test problems (RIØ1AØ6 to RI38). Since some test problems were in groups, for example, the first six problems in the booklet dealt with labeling the parts of a seed and giving the function of each part, therefore, the ratings were for that entire block of six items and are included in the variable RiØ1AØ6. This coding format indicates problem Ø1 through Ø6. The remaining RI variables continue from page 232 to page 242 with RI38.

Test problem 39 from Evaluation Booklet 2 begins on page 242, variable RPROB39. Some of the essay problems had multiple responses and received one or more coding sequences. For example, RPRO117 is the coding for the first part of student responses to problem 17. RPRO217 contains the coded responses for second part for a coding for that essay question. Responses to RPROB48 were not coded as no student chose to respond to that question. Similarly, item PROB58 and 59 do not appear in the codebook as there were no student responses to these two problems. Student ratings of the importance of the test problems (RI39A44 to RI75) in Evaluation Booklet 2 begin on page 259 and continue to page 267 of the codebook.

Evaluation Booklet 3 included a set of problems titled "Skill Development" coded RSKDV and a second set of problems titled "Feelings" coded RFEEL. These items were numbered sequentially beginnning with 76 and terminating with 98. Data for the REPRODUCTION module ends on page 278 with RFEEL98.

All student responses were marked in the three consumable evaluation booklets. Evaluation booklets were returned to the Human Sciences staff and secretarial staff coded booklet reponses onto optical scan sheets for data processing.

The evaluation data of the REPRODUCTION module completes the evaluation data for Level II of Human Sciences, tested in the school year 1974-75.

Level III Evaluation Data, 1975-76

Four modules were tested with the eighth grade students in Human Sciences classes in the academic year 1975-76. These modules, reported in the order in which they were tested, were CHANGE, FEELING FIT, INVENTION, and SURROUNDINGS. An additional Level III module, KNOWING,was tested with different test sites, students, and teachers in the spring of 1977. Data from this field test are available on data tape KSPKNOW. Consult Robinson and Tolman (1981) for information about these data.

In addition to the module-specific evaluation data collected in 1975-76, year-end data about logical competencies and attitudes toward Human Sciences were also obtained.

Evaluation data for Level III field tested in 1975-76 begin with the CHANGE module on page 279 of the codebook. The CHANGE module was tested in the same seven schools as the other materials beginning in October 1975. Most schools completed the testing of CHANGE early in January 1976, a period of about 11 to 12 weeks. The data gathering plan for evaluation of the Level III modules included three evaluation periods for each of the four modules to be tested. At each evaluation period students transferred data from their folders to "My Activity Record" optical scan sheets for CHANGE and FEELING FIT. Six possible responses were available for students to mark for each activity title printed on the optical scan sheets. These responses were placed in two groups preceded by the statement "Do you want to be accountable for the activity?" If "Yes,"

Mark 1 if you at least completed one part of the activity
Mark 2 if you completed all parts of the activity
Mark 3 if you learned by observing another's activity.

If "No,"

Mark 4 if you haven't looked at it
Mark 5 if you haven't had time to do it
Mark 6 if you haven't wanted to do it.

Fifteen-item sets of objectively scored problems were developed for each evaluation period. Students were invited to read each problem and decide whether they wanted to answer the problem or not. If they did not choose to answer the problem they were to circle response choice 7. If they did choose to answer they were to circle the number of the "best answer." They were also asked to write a reason for choosing the answer to the question. They marked their responses in the consumable test booklets. At the close of a problem area, when students had marked their "My Activity Record" optical scan sheets for the activity choices, they were also given an optical scan sheet with the objective problems. These problems were briefed, giving the

first part of the stem of each item and asking students to record their answer to each problem on the optical scan sheet. A space was provided on this response sheet for them to give reasons for their choice. In addition to the objectively scored problems each evaluation period included a set of essay problems titled "Choose Your Problem," and two groups of self-rating problems, one titled "Work Habits," and one titled "Skills Development." Data from the self-rating problems were not returned to the Human Sciences project for the CHANGE module. Self-rating problems for "Skills Development" and "Work Habits" were obtained from FEELING FIT, INVENTION, and SURROUNDINGS.

The INVENTION module had an entirely different structure from the other three Level III modules. Its particular structure and the way in which information was recorded for this module will be discussed below.

Change Module

There were fifteen activities in the first problem area of CHANGE, called "Change in Non-Human Organisms." Activity data are filed under the variable lable CNHACTØ1 to CNHACT15, pages 279 to 286 of the codebook. These variables give the frequencies of activity choices in the first problem area. Data for the objectively scored problems begin on page 286 with variable CNHOPRØ1 continuing to page 293 and ending with variable CNHOP15.

Activity Records for the second problem area, "Change in Humans," begin with variable CHNACT19, page 294, and continue to page 301 of the codebook, terminating with variable CHNACT34, "Architectural Change," the last activity in the problem area.

The fifteen objectively scored problems follow beginning on page 302, variable CHOOPRØ1 and terminating on page 309 with variable CHOOPR15.

The activity record for the final problem area "Change in Non-Living Things" begins of page 309 with variable CNLACT35 and terminating with variable CNLACT49 on page 316.

Three skills booklets were included within the CHANGE module. These skills booklets were available for student use throughout the module. Use patterns for the three booklets begin on page 317 of the codebook with variable CHGSKBØ1 and terminating on page 318 with CHGSKBØ3.

Objectively scored problems for the final problem area "Change in Non-Living Things" begin on page 318, variable CNLOPRØ1, continuing to page 325, variable CNLOPR15.

The essay problems titled "Choose Your Problem" were coded for the variety of student responses. "Choose Your Problem" are designated by letters A or A1, B and so forth. For each "Choose Your Problem" having more than one response coded, the designation A1, A2, etc., was used. On page 326 for example, variable CNHOPA1 gives the responses for students to the question, "Think about this statement: There are living things that cannot be seen with the unaided eye. Write about why you agree or disagree with the statement. Include evidence (data) in your answer." A review of student responses indicated two kinds of responses. First, there were responses that dealt with the idea that some things are too small to be seen without a microscope. Second, there were certain things which cannot be seen. These two different statements may or may not have had examples. The values for these variables include the statement and the number of examples students gave to support the statement.

"Choose Your Problem" variable numbers begin with 4 because B1, 2, and 3 in such cases were purged from the file. This purging was necessary due to a series of coding errors that could not be eliminated. The data in these variables were the number of words, number of sentences, and number of phrases in student responses. They were initially coded in hopes of being usable for analysis over a period of the school year.

"Choose Your Problem" essay problems for the problem area "Change in Humans" begin on page 332 with variable CHA4 and continue to page 336 with variable CH5D.

Essay problems for the last problem area "Change in Non-Living Things" begin with the variable CNLTA4 on page 337 and continue to page 341 with variable CNLTE5, thus terminating the data for the CHANGE module.

Feeling Fit Module

The FEELING FIT module was tested from January 1976 to approximately the end of March 1976--a period in most classes of from 7 to 9 weeks. Data were gathered in the same manner as that for the CHANGE module with students transferring information from activity folders to the optical scan sheet and from test booklets to optical scan sheets. Three evaluation periods were scheduled for the FEELING FIT module.

Activity record data for FEELING FIT begin on page 341 of the codebook with variable FFACTYØ1 and continue to page 368 ending with the variable FFACTY54, "Student Developed Activities," Note here that some 25 students participated in either writing or doing student developed activities.

Eleven books were included in the FEELING FIT module and data were gathered to find usage and usefulness of each of these books.

The usage data begin with variable FFBKRDØ1, page 368, continuing to page 374, variable FFBKRD12, "Miscellaneous Books." Teachers indicated that the activities in the module had generated interest in reading a wide variety of books beyond those provided in the module. The record of 74 cases reported in the variable should not be misunderstood. Those students marked one of the response choices. Only 10 students reported that they read all or part of some non-listed reference (see FFBKRD12). The usefulness of the books provided begins with variable FFBKUSØ1 on page 374 continuing to page 38Ø with FFBKUS12.

Three booklets of 15 objectively-scorable problems were used at each of the three evaluation periods in FEELING FIT. Data for student responses to the objectively-scored problems begin on page 38Ø with variable FFOBPRØ1 and continue to page 4Ø2 terminating with FFOBPR45.

Eighteen "Choose Your Problem" essay questions were included in the evaluation activities for the final period. Students were asked to write answers to any two of the 18 problems. Coding protocols were devised for each of these problems. Student responses appear in the codebook beginning on page 4Ø3, variable FFPROBA1, continuing to FFPROBR, page 414. As in the CHANGE module some essay problems were coded for more than one response since the problem was either divided into parts or included two or more questions. Responses to Problem B were eliminated because no coding scheme could be devised that captured the ideas presented in the diversity of responses to this problem. Problem O and Q were not chosen by any students responding to the FEELING FIT module evaluation activities.

Two kinds of self-rating problems were included in the final evaluation period for FEELING FIT. The first were titled "Work Habits," the second, "Skills Development." Twelve statements were included for students to respond to in the "Work Habits" section. Each statement was to be responded to twice. The first response was with regard to "Work Habits during FEELING FIT." The second "In comparison to CHANGE, I have..." Each statement was rated by the student on a 5-point scale with choice "1" labeled "Most of the time," "3" labeled "About half of the time," and "5" labeled "Not often." "Two" and "4" were labeled "intermediate line positions." The third problem "I do activities thoughtfully" was accidentally omitted from the printed optical scan sheet. Since optical scan sheets rather than consumable booklets were received by the Human Sciences project, it was assumed that students and teachers found this error and marked the self-rating problems on the optical scan sheets with the third problem omitted. In the codebook, "Work Habits" were numbered from 1 to 11 excluding the omitted statement. Variables FFWKHFØ1 beginning on page 415 through variable FFWKHF11 are the "Work Habits" readings for FEELING FIT. FFWKHCØ1 beginning on page 42Ø through FFWKHC11, page 425 are the "Work Habits" in comparison to the CHANGE module.

Self-ratings for the Skills Development statements begin on page 426, variable FFSKDVØ1 and terminate on page 429, variable FFSKDVØ8. The last skills development statement "Add any skills you improved

upon during the module that were important to you" was not coded due to the diversity of responses. Each of the skills development items was responded to on a 5-point "strongly agree" to "strongly disagree" continuum.

Invention Module

The INVENTION module was tested from approximately the end of March until early or mid-May in some schools, until the end of the school year, May 1976, in other schools.

INVENTION provided a special problem in determining whether an activity was completed or not. The module had 27 individual activities for student choice and two integrative activities. One integrative activity, "Introduction to Invention," was designed as an all-class introduction to the module. "You and Other Great Inventors," the second integrative activity was designed to use late in the module.

The model for INVENTION, in contrast to the other Human Sciences modules, was to reduce the number of activities in the module in order to lengthen activities for greater depth of study. But, these long activities were broken into parts so that students could select the parts they wished to study. This design was to encourage students to study enough about an invention to develop an understanding of it. Students were asked to study at least two parts of an activity before moving to another. They were strongly urged to study all parts of activities they started.

Data were gathered for each part of each activity that students chose. Students circled the number of each activity part they "did" (first column of their "Invention Folder"), and each activity part they wished to be accountable for (second column). This basic activity record was transferred by each student to an optical scan sheet for data processing, using the following directions:

Mark 1 if you circled the part in <u>both</u> columns (categories)
Mark 2 if you circled the part in the <u>first</u> column, but not the second
Mark 3 if you circled the part in the <u>second</u> column, but not in the first
Mark 4 if you didn't circle the part in <u>either</u> column.

From this data transfer, the activity record for each part of each activity could have a value of 1, 2, 3, or 4. Values of 1, 2, or 3 were considered as having chosen or "done" the activity part. A value of 4 was designated as not having chosen that part. To calculate "completed" activities, rather than activity parts as is reported in the codebook, the following procedure could be used. The values for each activity part are summed and divided by the number of parts. The activity is considered to have been "completed" if the value of this sum is less than 3.5. If the value of the sum is equal to or greater

than 3.5, the activity is considered "not completed." For a two-part activity, both parts would have to be done to count the activity as "completed." For activities with three parts or more, students have had to mark half or more of the parts with values of three or less for the activity to count as having been completed. The request to students to choose at least two parts of an activity was honored as a search for single parts within each student's records yielded no cases.

Data for 154 activity parts are in the data file and codebook for the INVENTION module. These data begin on page 43Ø in the codebook with the variable INACTØØ1 and terminate on page 5Ø6 with the variable INACT154.

Forty-five objectively scorable problems were used to gather data about student achievement for the INVENTION module. These were broken into three 15-item sections with the potential to have three evaluation periods. However, the test classes used a single evaluation period for INVENTION at the end of the module. In some schools this terminated the school year, in others time was available for testing the final Level III module SURROUNDINGS.

Objectively scorable problem data begin on page 5Ø7 with INOBPR45. Students marked responses to these problems by circling response choices in consumable problem booklets and then transferred their responses from these booklets to optical scan sheets. Just the stem of each item was repeated on the optical scan sheets.

Similarly, self-rating problems, work habits and skills development were included in the consumable test booklets. As with FEELING FIT the third problem in the "Work Habits" section in the student booklet was omitted from the optical scan sheet. Therefore, only 11 items appear in both the work habits in relation to FEELING FIT and the work habits related to a comparison to FEELING FIT. The values in the work habits were:

Mark 1 for most of the time
Mark 2 in between
Mark 3 for about half of the time
Mark 4 in between
Mark 5 not often.

In the comparison scale, students were asked to:

Mark 1 improved
Mark 2 in between
Mark 3 about the same
Mark 4 in between
Mark 5 not at all.

Frequencies for values of the INVENTION "Work Habits" self-rating scale begin on page 529 with variable INWKHIØ1 to page 534 with variable INWKHI11. The comparison work habits begins on page 535 with variable

INWKHFØ1 and continues to page 54Ø with variable INWKHF11.

Eight skills development self-rating problems were given using a response-choice from 1 to 5. These variables begin with variable INSKDVØ1 on page 54Ø and terminate with INSKDVØ7 on page 543.

"Choose Your Problem" essay-type questions were not used with the INVENTION module. Because of the change in activity design an "INVENTION Questionnaire" was developed. All questions for this questionnaire were printed on an optical scan form with 16 statements to be rated by students on the 5-point scale from 1 to 5 "strongly agree" to "strongly disagree." Response choices for these variables appear in the codebook beginning on page 544 with variable INQSTRØ1 ending on page 551 with variable INQSTR16.

Surroundings Module

The SURROUNDINGS module was tested in only three schools with five teachers. The test period in classes lasted from three or four days to a maximum of 13 days. SURROUNDINGS had a different evaluation program from the preceding modules. In this module when students completed an activity they were to fill out an "Activity Evaluation Form" and a "Problems to Solve" quiz. Both of these forms were to be responded to relative to the just completed activity. At the completion of the module test period, students completed these optical-scanned forms, "My Activity Record," "Self-Rating Problems, Skills Development," and "Self-Rating Problems, Work Habits."

Data from the "My Activity Record" are repeated in variables SRARECØ1 to SRAREC26, pages 552 to 561 of the codebook. Students used their SURROUNDINGS Folder, "Activity Evaluation Forms" completed, and "Problems to Solve" completed to mark each activity:

1. If both the Activity Evaluation Form and Problems to Solve were completed
2. If the Activity Evaluation Form, but not the Problems to Solve form was completed
3. If the Problems to Solve but not the Activity Evaluation Form was completed
4. If they hadn't looked at the activity
5. If they hadn't time to do the activity
6. If they hadn't wanted to do the activity.

Responses to student "Self-Rating Problems, Work Habits" relevant to the SURROUNDINGS module are reported in variables SRWHØ1 to SRWH11, codebook pages 562 to 567. The same problems were rated in comparison to INVENTION in variables SRWH12 to SRWH22, pages 567 to 572.

Responses to nine Likert-scale "Self-Rating Problems, Skills Development" are reported in variables SRSDØ1 to SRSDØ9, pages 573 to 577 in the codebook.

Each activity had a specific quiz, "Problems to Solve," that included from one to five items, with essay and objectively-scored problems. In this module students completed a "Problems to Solve" form only for activities they chose to study. Protocols and scoring codes were developed for each problem for each "Problems to Solve" set. These protocols could only be briefly stated for most items. Completed protocols and scoring are provided with the evaluation materials. Variable codes are provided to identify the particular activity, by number, and problem. For example, SRAØ1P1 indicates activity (Ø1), problem 1 (P1); SRAØ4P2A codes responses for activity (Ø4), problem 2, part A. Student responses to "Problems to Solve" begin with variable SRAØ1P1, page 577 of the codebook and end with variable SRA2ØP2, page 597. Activity codes are as follows:

AØ1	Zoom In...Zoom Out	A12	To Blend or Not to Blend?
AØ2	Our Changing Surroundings	A13	The Beasts in the Meadow
AØ3	Counting Tomorrow's Crowd	A14	Tools of Nature
AØ4	Animal Munchies	A15	Green Scenes
AØ5	How Well Do Others Know You?	A16	Wet Pets
AØ6	Electronic Surroundings	A17	Watch the Birdie
AØ7	Life On Humans	A18	Moon Watch
AØ8	Going to the Dogs		
AØ9	Here Kitty, Kitty	Integrative (All Class)	
AlØ	They Prowl at Night	A19	Zoom In...Zoom Out
All	Can You Dig It?	A20	The Relationship Game

Each student completed an "Activity Evaluation Form" for activities completed. The data for this part of the module are contained in the data tape SURRACT, a separate data tape, as they are filed with activity rather than with student as the case. This file is described below, following the completion of the discussion of HSPALL.

End of Year Evaluation Data

In May, 1976, between May 15 and May 25 all students in Human Sciences test classes were administered two instruments: "How Is Your Logic?" 1976 Edition, and "Science Questionnaire."

The 1976 Edition of "How Is Your Logic?" was administered in two forms, A and B, each with 13 items. Responses to the problems in Form A are variables A76Ø1 to A7613 and for Form B, variables B76Ø1 to B7613. Values for responses to these variables are in the codebook, pages 577 to 61Ø. Each item is labeled with the logical operation it was designed to measure. The same kind of scoring procedure was used in the 1976 edition as for the 1974 edition. Therefore, scores measuring the same logical operation are comparable.

The "Science Questionnaire" asked students if they were in Human Sciences in grades 6, 7, and/or 8. Responses to these questions are reported as variables SCIQØ1 to SCIQØ3, codebook pages 61Ø-611. It also asked students to rank order their classes taken in eighth grade. Rank order frequencies for science, social studies, and mathematics are reported as variables SCIQØ4 to SCIQØ6, pages 611 and 612.

The major portion of the "Science Questionnaire" was an 18-item semantic differential. Students were asked: "Circle the number that expresses how you feel about Human Sciences." The bipolar objectives were reported by seven digits: 3 2 1 0 1 2 3, with the adjectives listed to the left and right of "3" respectively. Scoring was done on a scale of 1 to 7 with "1" for the undesired adjective and "7" for the best. Data in the codebook identify the adjectives and frequencies are reported with the appropriate adjectives as labels for scores "1" and "7." Student responses to the adjective pairs are reported as variables SCIQØ7 to SCIQ24, pages 612 to 621 of the codebook.

The "Science Questionnaire" was given to a comparison group of students at each test school, selected by teachers to be equivalent in background to students in the Human Sciences test classes. These data are not included on any data tape from the project, but a study of the comparison of the two groups has been reported (Robinson 1980).

The Surroundings Activity Evaluation File, SURRACT

The machine-readable data tape SURRACT has 19 of the 20 activities of the SURROUNDINGS module as cases. Identification data and student ratings of the activities are the variables for each case. Upon completion of an activity, students were to complete a printed optical scan sheet for the activity. The 19 activities available for student choice were evaluated. The activity "Zoom In...Zoom Out" was used as an all-class activity as well as an activity for student choice. Variable SRAREC01 reports its usage as an individual activity; SRAREC25 reports its usage as an integrative activity. (See Codebook Contents for a listing of all variables in the data file.)

The SURROUNDINGS module was the last module tested in 1975-76. Four of the seven test schools were either delayed or had tested previous modules for long time periods and completed the year with the field test of INVENTION. Five teachers in three schools used the SURROUNDINGS module, but the time of use varied from 10 to 13 class periods among four of them, with no data from one. Additional information about the field test of SURROUNDINGS was provided in the section of the guide for SURROUNDINGS. A copy of the Activity Evaluation Form used to gather the data in this file is reproduced in the publication Human Sciences Evaluation Materials, available from the BSCS, and from the ERIC Clearinghouse of Science, Mathematics, and Environmental Education.

The Activity Evaluation Form was to be marked by students for each activity chosen. The activity title, class periods spent on the activity, time spent out of class, and student's name were provided by the student.

The following variables were coded onto the optical scan sheet by clerical personnel:

SCHL74, TCHR74, SNR74 and SEX were used as a basic student identification code. These numbers were assigned when the student entered a Human Sciences class. If the student entered a field test in 1973-74 this number represents the school and teacher of the student in that academic year. If the student entered in 1974-75 or 1975-76, SCHL74 and TCHR74 were given repeat codes of the variables SCHL75, TCHR75 or SCHL76, TCHR76, respectively. To determine the number of schools and teachers testing SURROUNDINGS, the frequencies for SCHL76 and TCHR76 are the appropriate variables. Counting the "code" of SCHL76 gives the number of schools from which data were received. The frequencies give the number of student Activity Evaluation Forms obtained from that school.

Data for ten variable ACTNO, PERIODS, and OUTCLASS were hand coded by clerical personnel onto the optical scan sheet. Variables

ENJOY to KNEW were marked by the students. The coding protocols used to code values for variables ATTCHOSE to REASCOG were developed by the project evaluator and coded onto the optical scan sheets, using the prose responses written on the sheets by the students as data. MODNO, the last variable, was coded by clerical personnel.

Frequencies (SPSS) were run on raw data input to determine invalid codes; original optical scan sheets were used to determine when coding errors might have occurred. If an accurate code could not be assigned, a missing data value was coded. Student coding could only be checked for out of bounds values. On variables ENJOY to KNEW, if a code of 0 was found, it was recoded to 1, the closest value value. The same procedure was used for values of 6 which were recoded as 5. Omitted data were left blank. For variables ATTCHOSE to REASCOG, illegible writing was coded "not codeable." Omitted responses were left blank.

The six variables ENJOY to KNEW contain responses to Likert-scale statements. The value label is shortened from the wording on these scales.

Coding protocols for the values ATTCHOSE to REASCOG are also shortened value labels summarizing the varied student responses to the questions and are the literal responses made. Six sentence-completion statements followed the Likert-scales.

Responses to the statement, "I chose this activity because..." were categorized as into attitudinal, cognitive, and logistic components. Responses are coded as variables ATTCHOSE, COGCHOSE, and LOGCHOSE. Logistic in this and other coding refers to materials, where the activity was done--like out of class, or what was done, such as construction or interviewing.

Responses to the statement, "The part of the activity I enjoyed most was _____ because..." were coded in four variables, PART, ATTREAS, COGREAS, and LOGREAS.

Responses to the statement, "I think the activity would be better if ..." were coded in one variable, BETTER. Responses for the statement, "From the activity I learned..." were coded in the variable LRND. Responses for the statement, "How would you describe the activity?" were coded in the single variable, DSCRB.

The final problem, "I would recommend (not recommend) the activity..." was assigned four variables, one for the recommendation, RCMND, and two for the kind of response, attitudinal (REASATT) and/or cognitive (REASCOG).

The final variable, MODNO, was a reference check to ascertain that all data in this file were from SURROUNDINGS.

Surroundings Activity Evaluation File

Codebook Contents

Identification Data		Page
SCHL74	School Number, 1973-74	1
TCHR74	Teacher Number, 1973-74	1
SNR74	Student Number, 1973-74	2
SEX	Sex of Students	2
SCHL76	School Number, 1975-76	3
TCHR76	Teacher Number, 1975-76	3
SCHL75	School Number, 1974-75	4
TCHR75	Teacher Number, 1974-75	4

Student Ratings of Activities		
ACTNO	Activity Number	5
PERIODS	Class Periods Spent on Activity	6
OUTCLASS	Hours Spent Outside Class Period	6
ENJOY	Activity Was Enjoyable (Agree-Disagree)	7
DFCLT	Activity Was Difficult (Agree-Disagree)	7
THINK	Activity Made Me Think (Agree-Disagree)	8
IMPORT	Activity Was Important To Me (Agree-Disagree)	8
USEFUL	Learned Useful Things (Agree-Disagree)	9
KNEW	Already Knew Most Things (Agree-Disagree)	9
ATTCHOSE	Chose Activity Because - Attitude	10
COGCHOSE	Chose Activity Because - Cognitive	10
LOGCHOSE	Chose Activity Because - Logistic	11
PART	Part of Activity Enjoyed Most	11
ATTREAS	Reason Activity Chosen - Attitudinal	12
COGREAS	Reason Activity Chosen - Cognitive	12
LOGREAS	Reason Activity Chosen - Logistic	13
BETTER	Activity Would Be Better If	13
LRND	What I Learned from the Activity	14
DSCRB	Description of the Activity	14
RCMND	I Would Recommend the Activity	15
REASATT	Reason Recommended - Attitudinal	15
REASCOG	Reason Recommended - Cognitive	16
MODNO	Module ID Number	16

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Using the Human Sciences Evaluation Data File

This large data file contains the activity-choice data, achievement data, logical competence data, and attitude data collected over the academic years 1973-74 to 1975-76. The initial field test began with sixth graders, mean age 12.1 years in May 1974. Two hundred thirteen of the 734 cases in the file were continuously enrolled in the field test classes. The student cases cannot be identified by class groups, but can be identified by school and by teacher groups.

Four general tests were administered to all students in the test classes, two in May 1974 and two in May 1976. "What's Happening?", a 38-item attitude scale given in 1974 had a Guttman reliability (Lambda 6) of .67. This is an underestimation of the reliability of the scale. Factor analysis of "What's Happening?" did not support the conceptual design of this instrument. Rather than four hypothesized factors, 13 factors were found (Rao's canonical analysis, SPSS version 8.0). These 13 factors accounted for 59.1 percent of the variance. Factors were selected on the basis of factor loadings greater than .40. Two items did not load in any factor.

"How Is Your Logic?" 1974 edition was also given in 1974. Rao's canonical factor analysis yielded three formal factors and two concrete factors. Reliabilities (Guttman) of these five factors ranged from .73 to .84, lower-bound estimates of the reliabilities. Guttman reliabilities for the 13 items comprising all factors was .86.

The 18-item attitude scale in the "Science Questionnaire," given in May 1976, was analyzed using Scott's Scale Analysis (Scott, 1968). The four subscales, Evaluation, Value, Activity, and Interest had Guttman reliability coefficients of .87, .80, .70 and .83 respectively.

"How Is Your Logic?" 1976 edition, given in May, 1976, was factor analyzed using Rao's canonical analysis. Five factors comparable to those found in the factor analysis had Guttman reliabilities ranging from .72 to .78, but one concrete factor had a reliability of .34. This low reliability reflected the high scores (85 percent correct) made by the eighth graders in this factor.

APPENDIX A

Requests for Data File and Codebook Shipment

The Human Sciences Data File, HSPALL materials are distributed in three files: the machine-readable user's guide, the codebook, and the data.

The user's guide and the codebook are available on magnetic tape, as print documents, or in microfiche form. The data, stored as an SPSS Archive file, are available on magnetic tape. Output will be written from two runs, one for card images and second for SPSS labels. Users with CDC hardware may order an SPSS systems file if desired.

A request form for ordering tape materials appears on page 27 of this user's guide. Tapes will be produced by a Control Data Corporation (CDC) CYBER computer. Labels produced by CDC equipment cannot be used by other computers. To avoid problems in reading the tape, an unlabeled tape is recommended. SPSS labels will be output in a form readable by any computing system with SPSS software. SPSS labels and data will be output using the SPSS 8.0 version.

Only 1,000 variables can be output from an SPSS Archive file, therefore, users will need to specify the variables they wish or ask for two runs in order to output all variables in HSPALL. Unless otherwise specified, data will be written in X F 3.0 format, where X is the number of variables requested. No more than 26 variables will be written per card image.

The Human Sciences Surroundings Module Activity Evaluation File data are distributed in two files: the codebook and the SPSS systems file. This file contains data from student ratings of activities as explained earlier in this codebook. Output data are the same as specified for HSPALL, except that the file is smaller and variables do not need to be specified.

Requests for the data tape can be specified on the tape order form using the title: Human Sciences Surroundings Module Activity Evaluation File. The codebook is listed on the Nontape Order Form.

Tape titles are listed below. Use these titles on the Tape Order Form:

Human Sciences Data File, HSPALL

Human Sciences SPSS Labels

Surroundings Activity Evaluation File, SURRACT

Note that user's guides and codebooks are to be ordered from the ERIC Clearinghouse as cited on the Nontape Order Form. Use the Nontape Order Form for print or microfiche materials. Cost estimates will be sent prior to preparation and delivery. The publication, Human Sciences Evaluation Materials, discussed in the first section of the user's guide, may be ordered on the Nontape Order Form.

TAPE ORDER FORM

Name: _____

Address: _____

_____

_____

Title of Tape(s) Requested: _____

Variables Requested: _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____ _____

TAPE RECORDING SPECIFICATIONS (Circle your specifications):

Seven-track Tape

Density	200	556	800
Parity	Even	Odd	
Record blocking	Blocked	Unblocked	
Maximum block size	_____		
Record length	80 columns	Other_____	
CDC standard labels	Labeled	Not labeled	
1-6 character label	_____		
Character code	ASCII	EBCDIC	Other_____

Nine-track Tape

Density (BPI)	800	1600	6250
Parity	Odd		
Record blocking	Blocked	Unblocked	
Maximum block size	_____		
Record length	80 columns	Other_____	
CDC standard labels	Labeled	Not labeled	
1-6 character label	_____		
Character code	ASCII	EBCDIC	Other_____

Send to: BIOLOGICAL SCIENCES CURRICULUM STUDY
833 W. South Boulder Road
Louisville, CO 80027

NONTAPE ORDER FORM

Name: _____

Address: _____

_____

_____

MATERIALS REQUESTED

No. Copies	Title	Form
_____	Human Sciences Data File, HSPALL, User's Guide for the Machine-Readable Data File	_____Print _____Microfiche
_____	Codebook for Human Sciences Data File HSPALL	_____Print _____Microfiche
_____	Human Sciences Activity and Reviewer Evaluation File, HSACRE, User's Guide to the Machine-Readable Data File	_____Print _____Microfiche
_____	Human Sciences Evaluation Materials	_____(Microfiche only)
_____	Human Sciences Surroundings Module Activity Evaluation File, SURRACT	_____Print Microfiche

Order these materials from:

ERIC Clearinghouse for Science, Mathematics and
Environmental Education
The Ohio State University
1200 Chambers Road, Third Floor
Columbus, OH 43212